

hydrocarbon analysis and continue for 4.0 ± 0.5 minutes. This is the final (time=60 minutes) methanol concentration, C_{CH_3OH} , required in § 86.143. Record the time elapsed during this analysis. If the 4-minute sample period is inadequate to collect a sample of sufficient concentration to allow accurate GC analysis, rapidly collect the methanol sample in a bag and then bubble the bag sample through the impingers at the specified flow rate. The time elapsed between collection of the bag sample and flow through the impingers should be minimized to prevent any losses.

(k) For the supplemental two-diurnal test sequence (*see* § 86.130-96), perform a hot soak test as described in this section, except that the test shall be conducted within seven minutes after completion of the hot start exhaust test and temperatures throughout the hot soak measurement period must be between 68° and 86° F. This hot soak test is followed by two consecutive diurnal heat builds, described in § 86.133-96(p).

(l) If the vehicle is to be tested for diurnal emissions, follow the procedure outlined in § 86.133-96.

[58 FR 16042, Mar. 24, 1993, as amended at 59 FR 48510, Sept. 21, 1994; 60 FR 43897, Aug. 23, 1995; 75 FR 22980, Apr. 30, 2010]

§ 86.139-90 Particulate filter handling and weighing.

(a) At least 8 hours, but not more than 56 hours before the test, place each filter in an open, but protected, petri dish and place in the weighing chamber which meets the humidity and temperature specifications of § 86.112.

(b) At the end of the 8 to 56 hour stabilization period, weigh the filter on a balance having a precision of one microgram. Record this weight. This reading is the tare weight.

(c) The filter shall then be stored in a covered petri dish which shall remain in the weighing chamber until needed for testing.

(d)(1) If the filter is not used within one hour of its removal from the weighing chamber, it shall be reweighed.

(2) The one hour limit may be replaced by an eight-hour limit if one or both of the following conditions are met:

(i) A stabilized filter is placed and kept in a sealed filter holder assembly with the ends plugged, or

(ii) A stabilized filter is placed in a sealed filter holder assembly, which is then immediately placed in a sample line through which there is no flow.

(e) After the test, and after the sample filter is returned to the weighing room, condition it for at least 1 hour but not more than 56 hours. Then weigh a second time. This latter reading is the gross weight of the filter. Record this weight.

(f) The net weight (P_e) is the gross weight minus the tare weight.

NOTE: Should the sample on the filter contact the petri dish or any other surface, the test is void and must be rerun.

[54 FR 14532, Apr. 11, 1989]

§ 86.140-94 Exhaust sample analysis.

The following sequence shall be performed in conjunction with each series of measurements:

(a) For CO, CO₂, CH₄, NO_x, and for Otto-cycle and methanol-fueled, natural gas-fueled and liquefied petroleum gas-fueled (if non-heated FID option is used) diesel vehicle HC:

(1) Zero the analyzers and obtain a stable zero reading. Recheck after tests.

(2) Introduce span gases and set instrument gains. In order to avoid errors, span and calibrate at the same flow rates used to analyze the test sample. Span gases should have concentrations equal to 75 to 100 percent of full scale. If gain has shifted significantly on the analyzers, check the calibrations. Show actual concentrations on chart.

(3) Check zeroes; repeat the procedure in paragraphs (a) (1) and (2) of this section if required.

(4) Check flow rates and pressures.

(5) Measure THC, CO, CO₂, CH₄, and NO_x concentrations of samples.

(6) Check zero and span points. If difference is greater than 2 percent of full scale, repeat the procedure in paragraphs (a) (1) through (5) of this section.

(b) For petroleum-fueled, natural gas-fueled and liquefied petroleum gas-fueled (if HFID is used) diesel vehicle HC: